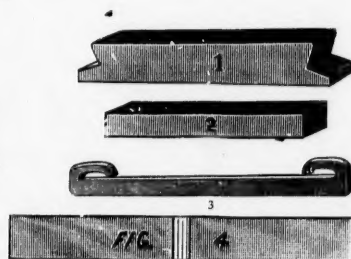
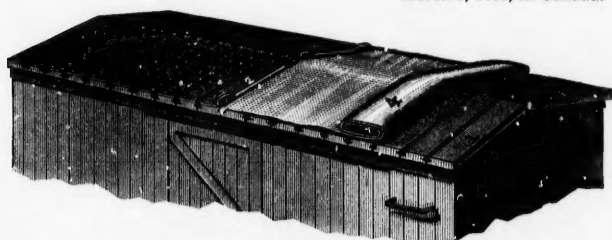


LEGROS CAR ROOF.

Patented July 3, 1883, in the United States.

" December 3, 1887, " "

" March 1, 1888, in Canada.



Specifications and Instructions for Putting on the LeGros Patent Car Roof.

The large cut No. 1 represents the roof as finished and under construction, showing the manner of laying the canvas, etc. Figure 1 is the roof board, which should be made of lumber one inch thick, six inches wide, and five feet, or usual length, and rabbeted half an inch on each edge, as shown; these rabbeted edges should be made or cut in the boards as they are gotten out and prepared for the roof. For a 34-foot roof it will take (136) one hundred and thirty-six of these boards, and they must be nailed to the roof timber with barbed wire nails $2\frac{1}{2}$ inches long. In the grooves or gullies formed by joining the rabbeted edges of the boards as they are nailed in position, place a strip of heavy bogus manilla paper, one and three-sixteenths inches ($1\frac{3}{16}$ ") wide. These strips of paper must be pressed down into the grooves. The object in using these strips of paper is to prevent the canvas from sticking to the bottom of the rabbet. No paint should be used in the rabbet or on the paper until they are all in position. This insures free action and the elasticity of the canvas. Then take the canvas, which is of heavy duck, specially made for the purpose, 60" wide, cut it into lengths equal to the width of the car, and roll it for convenience in handling, and to secure even distribution, on two boards, ten inches wide, four feet nine inches long, and one-half an inch thick, which are to be joined at the ends by leather or other flexible material, so as to allow them to conform to and lay flat on the roof of the car. (See Figure 4.) Having rolled the canvas on these boards, and materials in readiness, commence by painting the first three roof boards, including the grooves; paint the canvas also on the under side, or side that goes on to the boards, putting on as much paint as the canvas will absorb, and place it smoothly and firmly in position on the roof board at end of car. On reaching the first groove or rabbet, two iron bars, made as shown in Figure 3, should be used to hold the canvas down in the grooves, while the top board, Figure 2, which is five inches wide, five-eighths of an inch thick, and same length as board No. 1, is nailed in position. Board No. 2 should be well painted underneath, before nailing on, as also the canvas. Builders should bear in mind, and see that the workmen apply paint freely and plentifully to all the parts during construction, as the durability of the materials used are enhanced and strengthened by a free use of paint. The iron bars should remain in the grooves, to hold the canvas in place, until the surface boards No. 2 have been nailed into their respective places, and care should be taken to give the canvas in the rabbet full play, as upon this the elasticity of the roof is dependent. These iron bars are to be made $\frac{3}{4}$ " wide, $1\frac{1}{2}$ " thick, and 5 feet long, with handles turned up at the ends as shown in cut. Two of these bars are required for use in putting on the roof.

The top or surface board No. 2 should be nailed on with $1\frac{1}{2}$ " barbed wire nails, used not more than 5 inches apart, with two extra nails on the lower edge of the roof. In laying the canvas on the roof, as one width runs out, be careful to make the splice lap over about an inch, and make this lap in the center of the roof board No. 1, so that surface board No. 2 will cover it. After the roof has been put on as above described, turn the edges of the roof, and give it a good coat of paint all over. Let it stand until the following day, when another good coat of paint should be applied to that part of the roof to be covered by the running board. After the running boards have been put on, give the roof another good coat of paint all over, and it is then completed.

As an additional protection to the surface or walking boards No. 2, five plank of the same width and thickness as the No. 2 board, and three feet long, should be nailed on top of same near the brake staff, or where the brakeman stands when setting brakes.

When desired, a competent workman will be sent to instruct and superintend the construction of the roof, free of expense.

SPECIFICATIONS AND BILL OF MATERIALS
FOR THE
LeGROS CAR ROOF

AS CONSTRUCTED UNDER THE DIRECTION OF THE

LeGros Building and Car Roofing Company,

LOUISVILLE, KY.

MATERIAL FOR 34-FOOT ROOF.

525 feet lumber.
26½ yards canvas, 60" wide.
16 gallons paint.
4¼ pounds heavy paper.
17 pounds wire nails, 2½" and 3".
14 pounds wire nails, 1½".

The lumber used may be of pine, poplar, or cypress, good, sound, second quality, free from decay cracks, loose, or unsound knots, cut to the proper dimensions.

The canvas required is made specially for this purpose by the Mt. Vernon Company, Baltimore, Maryland, and branded and known as the LeGros Building and Car Roofing Company's Duck. 60".

The nails for the first roof boards with the rabbet edge are to be barbed wire nails 2½" long. For the top or surface boards, the same quality and kind, 1½" long, and for nailing on the outside plate, same quality and kind, 3" long.

The paper must be of heavy bogus Manilla.

The paint required is of the following materials and composition:

19 pounds white lead in oil.
10 gallons linseed oil, *boiled*.
47 pounds Princess paint.
¼ gallon Japan dryer.

The oil used in the paint must be pure linseed oil.

The labor involved in the construction is, as shown by our own experience, as follows:

Labor putting on roof, 10 hours.
" painting " 10 "

Practical experience has demonstrated that the entire cost of putting on the Roof in accordance with above specifications, based on the cost of materials and labor in Louisville, is 92 cents per running foot, or \$31.28 for a 34-foot car.